

CHECK LIST

OF THE

NOCTUIDAE

OF

America, North of Mexico,

BY

A. R. GROTE, A. M.

I.

Gombyciae and Noctuelitae (Nonfasciatae).

BUFFALO, N. Y.

Reinecke & Zesch, Printers, 500 Main Street, near Mohawk.

1875.

PREFACE.

The present list includes a full synonymy of the species so far as known. No references are given and the plan of Dr. LeConte's Catalogue of the Coleoptera, and that of the List of North American Lepidoptera, has been followed; in addition the species are numbered for the convenience of students.

I take this opportunity to thank the different correspondents who have sent me material in this Family which I have made for many years the object of my special study.

Unidentified names are followed by a --.

Preoccupied names are marked with a ||.

Names cited in error are marked with a ‡.

The Buffalo Society of Natural Sciences,

A. R. G.

November 1st, 1875.

CHECK LIST

— OF —

North American Bombyciae and Noctuelitae (Nonfasciatae)

— BY —

AUG. R. GROTE, A. M.

NOCTUAE.

Bombyciae Hubn. ¹

VERAE Grote.

LEPTINA Guen.

1. dormitans Guen.
2. latebricola Grote.
(præc. var?)

3. ophthalmica Guen.
4. Doubledayi Guen.

FALSAE Grote.

PSEUDOTHYATIRA Grote.

5. cymatophoroides Grote.
♂ *Thyatira cymat.* Guen.
6. expultrix Grote.
♀ *Thyatira cymat.* † Guen.

HABROSYNE Hubn.

7. scripta Grote.
Thyatira scripta Gosse.
Thyatira abra Guen.

THYATIRA Ochs.

8. pudens Guen.

Noctuelitae Latr.

NONFASCIATAE Borkh.

EUTOLYPE Grote.

9. Rolandi Grote.
Copipanolis vernalis Morr.

DICOPIS Grote.

10. muralis Grote.
11. Thaxterianus Grote.
12. electilis Morr.—

RAPHIA Hubn.

13. abrupta Grote.
14. frater Grote.
Saligena personata Walk.

CHARADRA Walk.

15. deridens G. & R.
Diptera der. Guen.
Acronycta circulifera Walk.
Char. contigua Walk.

¹ CYMATOPHORA CANIPLAGA Walk., and CYMATOPHORA IMPROVISA Hy. Edw., are unknown to me and perhaps do not belong to this group.

16. *dispulsa* Morr.
 17. *propinquininea* Grote.
- HARRISIMEMNA Grote.
18. *sexguttata* Grote.
Notodonta sexg. Harris.
Grammophora trisignata Walk.
- FERALIA Grote.
19. *jocosa* Grote.
Diphthera joc. Guen.
- MOMOPHANA Grote.
20. *Comstocki* Grote.
- DIPHATHERA Hubn. ²
21. *fallax* H.-S.
- APATELA Hubn.
22. *grisea* Grote.
Noctua grisea Barnston.
pudorata Morr.
 23. *tritona* Grote.
Triaena tritona Hubn.
 24. *dentata* Grote.
 25. *occidentalis* Grote.
Acronycta occid. G. & R.
 26. *telum* (Guen.).—
 27. *morula* Grote.
Acronycta mor. G. & R.
 28. *lobeliae* Grote.
Acronycta lob. Guen.
 29. *furcifera* Grote.
Acronycta fure. Guen.
 30. *hasta* Grote.
Acronycta hasta Guen.
 31. *Radcliffei* Harvey.
 32. *Harveyana* Grote.
 33. *quadrata* Grote.
 34. *interrupta* (Boisd.).—
 35. *spinigera* Grote.
Acronycta spin. Guen.
 36. *funeralis* Grote.
Acronycta fun. G. & R.
Acr. americana † Harr. (Ent.
Cor. larv.)
 37. *innotata* Grote.
Acronycta inn. Guen.
Diphthera Graefii Grote.
38. *lupini* Grote.
Acronycta lupini Behr Ms.
 39. *lepusculina* Grote.
Acronycta lepusc. Guen.
Acr. populi Riley.
 40. *insita* (Walk.).
(spec. distinct.?)
 41. *americana* Harris.
Phalaena aceris † Abb larva.
Acron hastulifera † Guen.
? *Phal. hastulifera* Abb. imago
 42. *acericola* (Guen.).—
Phalaena aceris † Abb. imago.
Phalaena hastulifera Abb. larva
teste Guen.
 43. *dactylina* Grote.
 44. *rubricoma* Grote.
Acronycta rubrie. Guen.
 45. *luteicoma* Grote.
Acronycta luteie. G. & R.
 46. *brumosa* Grote.
Acronycta brum. Guen.
Acron. Verrillii G. & R.
 47. *subochrea* Grote.
 48. *aspera* (Morr.) —
 49. *noctivaga* Grote.
 50. *superans* Grote.
Acronycta super. Guen.
 51. *persuasa* Harvey
 52. *afflicta* Grote.
 53. *longa* (Guen.).—
 54. *clarescens* Grote.
Acronycta elar. Guen.
 55. *ovata* Grote
 56. *hamamelis* Grote.
Acronycta ham. Guen.
 57. *increta* Grote.
Acronycta incr. Morr.
 58. *dissecta* Grote.
Acronycta diss. G. & R.
 59. *albarufa* Grote.
 60. *vinnula* Grote.
 61. *paupercula* Grote.
 62. *exilis* Grote.
 63. *sperata* Grote.

² The type of this genus is the European ORION, a species determined by Hubner as the APRILINA of Linne, which latter proves however, different. I have proposed to restrict Moma to M. ASTOR (Cram.) and the name TRICHOSEA LUDIFICA for the DIPHATHERA LUDIFICA of Lederer.

64. lithospila Grote.
 65. perdita Grote.
 66. xyliniformis Grote.³
 Aeronyeta xylinif. Guen.
 Aeron. xylinoides Guen.
- § *Euloneke* Grote.
 67. oblinita Grote.
 Phalaena oblinita Abb. & Sm.
 68. lanceolaria Grote.
 69. insolita Grote.
- JASPIDEA Hubn.
 70. lepidula Grote.
 71. palliatricula Grote.
 Bryophila pall. Guen.
 72. corticosa (Guen.).—
 73. percara (Morr.).—
 74. discitincta (Walk.).—
 75. discivaria (Walk.).—
 76. discinigra (Walk.).—
 77. nana (Hubn.).
 78. teratophora (H.-S.).
 Erastria inscripta Walk.
- CERMA Hubn.
 79. Cora Hubn.
 ?*Chariptera festa* Guen.
- POLYGRAMMATE Hubn.
 80. hebraicum Hubn.
- MICROCOELIA Guen.
 81. fragilis Guen.
 82. diphteroides Guen.
 82a. oblitterata Grote.
- AGROTIS Hubn.
 83. Chardinyi (Boisd.).
 Agr. gilvipennis Grote.
84. sigmoides Grote.
 Noctua sigm. Guen.
 85. elimata (Guen.).—
 86. dilucida Morr.—
 87. badicollis Morr.
 Ammoconia badic. Grote.
 88. attentata Grote.
 89. perattentata Grote.
 90. phyllophora Grote.
 91. rubifera Grote.
 rubi † Grote.
 92. conflua Tr.
 93. baja (S. V.).
 94. Normaniana Grote.
 Agr. obtusa Speyer.
 95. rufipectus Morr.
 96. harnspica Grote.
 Agr. unimacula || Morr.⁴
 97. innotabilis Grote.
 98. e-nigrum (Linn.).
 99. bicarnea Grote.
 Noctua bic. Guen.
 Feltia ducons Walk.
100. Treati Grote.
 101. auxiliaris Grote.
 102. introferens Grote.
 103. perexcellens Grote.
 Agr. excellens || Grote.
 104. cinereomacula Morr.
 105. gularis Grote.
 106. fennica (Tausch.).
 107. subgothica (Haw.).
 Agr. jaculifera Guen.
108. tricola Lintn.
 109. herilis Grote.

³ The following names cannot be identified from published data concerning them: *Aeronyeta modica*, *impleta*, *contacta*, *albida*, *deklarata*, *impressa*, *fasciata*, *mixta*, *cristifera*, of Walker in the British Museum Lists; *ulmi*, *pruni*, *salicis*, of Harris in his Entomological Correspondence, edited by Mr. Scudder.

⁴ Related to the European *angur*. Mr. Morrison is in error, both in supposing that his name could be used for this species after having been previously employed for another species or variety in the same genus, and in pronouncing *unimacula* Staud., a "simple variety" of *pecta*. Dr. Staudinger, who ought to know his own species, is doubtful that it is a variety, while Lederer, who has been considered good authority, thought it a variety of *leucogaster*.

110. *exsertistigma* Morr.
111. *Wockei* Moeschl.
112. *vittifrons* Grote.
113. *ochrogaster* (Guen.) —
114. *plecta* (Linn.).
115. *obeliscoides* (Guen.).—
116. *sexatilis* Grote.
117. *Lewisi* Grote.
118. *silens* Grote.
119. *larena* Grote.
120. *Hollemani* Grote.
121. *acclivis* Morr.
122. *badinodis* Grote.
123. *collaris* G. & R.
124. *carissima* Harvey.
125. *formalis* Grote.
126. *geniculata* G. & R.
127. *tessellata* Harr.
maizi Fitch.
128. *decolor* Morr.
Agr. campestris Grote.
129. *versipellis* Grote.
130. *redimicula* Morr.
131. *Ridingsiana* Grote.
132. *4-dentata* G. & R.
133. *plagigera* Morr.
134. *cicatricosa* G. & R.
135. *pitychrous* Grote.
136. *Wilsoni* Grote.
137. *specialis* Grote.
138. *mimallonis* Grote.
139. *rufipennis* Grote.
140. *manifesta* Morr.
141. *manifestolabes* Morr.
142. *monochromatea* Morr.
143. *muraenula* G & R.
144. *scandens* Riley.
145. *friabilis* Grote.
146. *Bostoniensis* Grote.
147. *violaris* G. & R.
148. *sculptilis* Harvey.
149. *chortalis* Harvey.
150. *balanitis* Grote.
151. *fumalis* Grote.
Agr. permunda Morr.
152. *fuscigera* Grote.
153. *feniseca* Harvey.
154. *messoria* Harr.
Agr. repentis G. & R.
Agr. Cochranii Riley.
Agr. lycarum ‡ Grote (Cal.).
155. *infracta* Morr.—
156. *Rileyana* Morr.
157. *velleripennis* Grote.
158. *pastoralis* Grote.
159. *gagates* Grote.
160. *intrita* Morr.
161. *euroides* Grote.
Agr. perpura Morr.
162. *imperita* (Hubn.).
Agr. comparata Moeschl.
163. *saxigena* Morr.—
164. *dissona* Moeschl.
165. *rava* H. - S.
166. *fusca* Boisd.
Agr. septentrionalis Moeschl.
167. *islandica* Staud.
Agr. opipara Morr.
168. *umbrata* Pack.—
169. *littoralis* Pack.
170. *speciosa* (Hubn.).—
171. *Staudingeri* Moeschl.—
172. *Drewseni* Staud.—
173. *oblata* Morr.—
174. *Westermanni* (Staud).—
175. *Morrisoniana* Riley.
176. *gladiaria* Morr.
177. *venerabilis* Walk.
♀ incallida Walk.
178. *volubilis* Harvey.
179. *stigmosa* Morr.
180. *gravis* Grote.
181. *Vancouverensis* Grote.
182. *segetum* (S. V).—
Agr. texana Grote.
183. *rudens* Harvey.
184. *annexa* Tr.
185. *malefida* Guen.
186. *spissa* Guen.—

187. *ypsilon* (Rott.).
Noct. suffusa S. V.
Agr. telifera Harr.
188. *saucia* (Hubn.).
Agr. inermis Harr.
Agr. Ortonii Pack.
189. *inconcinna* Harvey.
190. *clandestina* Herr.
191. *brunneicollis* Grote.
192. *alternata* Grote.
193. *cupida* Grote.
194. *brunneipennis* Grote.
195. *cupidissima* Grote.
196. *observabilis* Grote.
- § *Pachnobia* Guen.
197. *carnea* Guen.
Agr. okakensis Pack.
- 197a. *seropulana* Morr.
198. *claviformis* Morr.
Pachn. orilliana Grote.
- § *Matuta* Grote.
199. *Catherina* Grote.
- § *Anicla* Grote.
200. *lubricans* Grote.
Noctua lubrie. Guen.
201. *incivis* Guen.
Anicla Alabamæ Grote.
202. *simplaria* Morr.
Agr. simplicius † Morr.
203. *brocha* Morr.
- § *Eurois* Hubn.
204. *digna* Morr.—
205. *pressa* Grote.
206. *prasina* (S. V.).
Aplecta herbida Guen.
207. *occulta* (Hubn.).
Hadena implicata Lcf.
208. *astrieta* (Morr.).
209. *præfixa* Morr.—⁵
- POLYPHAENIS Boisid.
210. *herbacea* Guen.—
- ADITA Grote.
211. *chionanthi* Grote.
Phalaena chion. Abb. & Sm.
- MAMESTRA Ochs.
212. *purpurissata* Grote.
213. *nimbosa* Grote.
Aplecta nimb. Guen.
214. *imbrifera* Grote.
Aplecta imb. Grote.
215. *latex* Grote.
Aplecta lat. Guen.
Apamea demissa Walk.
216. *condita* (Guen.).—
217. *adjuncta* Guen.
218. *lubens* Grote.
Mam. rufula Morr.
219. *Farnhami* Grote.
220. *grandis* Led.
Hadena grandis Boisid.
221. *subjuneta* Grote.
Hadena subg. G. & R.
222. *atlantica* Grote. ⁶
223. *vicina* Grote.
?M. teligera Morr.
224. *distincta* Grote.
Astrapelis dist. Hubn.
225. *legitima* Grote.
226. *lilacina* Harvey.
Mam. illabefacta Morr.

⁵ The following names cannot be identified from published data concerning them: *Agrotis divergens*, *haesitans*, *insignata*, *mollis*, *perlentus*, *radix*, *Graphiphora juemunda*, *expansa*, *illapsa*, of the British Museum lists. Information has been afforded me as to the species described scantily, and in some cases inaccurately, by Mr. Morrison Bost. Soc. N. History, 1874, pp. 162 et seq.

⁶ This is a smaller species than *subjuneta*, and differs by the larger claviform and the absence of the black dash across the median space beyond this spot. The orbicular is more oblique, the reniform smaller than in *subjuneta*. The fore wings are more reddish and the hind wings darker than its ally. *Expanse* 20 mm.; May.

227. *assimilis* Morr.
 228. (?) *curta* Morr.—
 229. *Dimmocki Grote.*
 230. *Rogenhoferi Moeschl.—*
 231. *incincta* Morr.—
 232. *thecata* Morr.—
 233. *chartaria Grote.*
 234. *albifusa Grote.* ⁷
 Hadena albif. Walk.
 Mam. trifolii † Speyer.
 235. *trifolii (Esp.).*
 Noctua chenopodii S. V.
 236. *rugosa* Morr.—
 237. *impolita* Morr.—
 238. *detracta.*
 Hadena detr. Walk.
 Mam. claviplena Grote.
 239. *cuneata Grote.*
 240. *puerilis Grote.*
 241. *loreä H.-S.*
 Hydroecia lor. Guen.
 242. *rosea Harvey.*
 243. *vindemialis Grote.*
 ?*Cerameia vind.* Guen.
 ?*Cerameia rubefacta* Morr.
 244. *w-album (Guen.).—*
 245. *ectypa* Morr.—
 246. *repentina* Morr.—
 247. *cinnabarina Grote.*
 248. *renigera Grote.*
 Celaena ren. Steph.
 Ocl. herbimacula Guen.
 249. *Goodelli Grote.*
 250. *innexa* Morr.
 Perigrapha inn. Grote.
 251. *marinitincta Harvey.*
 252. *laudabilis Grote.*
 Hecatera laud. Guen.

253. *illandabilis Grote.*
 254. *olivacea Morr.*
 255. *4-lineata Grote.*
 DIANTHOECIA Boisd.
 256. *meditata Grote.*
 257. *modesta Morr.—*
 258. *rufula Grote.*
 259. *subdita Moeschl.—*
 260. *phoca Moeschl.—*
 261. *capsularis Guen.*
 Raphia propulsa Walk.

262. *leucogramma Grote.*
 263. *niveiguttata Grote.*
 264. *lustralis Grote.*
 265. *pensilis Grote.*
 ?*Mam. passa* Morr.
 266. *palilis Harvey.*
 267. *insolens Grote.*

HADENA Schrank.

268. *Burgessi.*
 Luceria Burg. Morr.
 269. *delicata Grote.*
 270. *loculata.*
 Luceria loc. Morr.
 271. *Sommeri Lef.--*
 272. *exulis Lef.*
 Had. marmorata Zett.
 Had. groenlandica Lef.
 Had. gelata Lef.
 Neuria cervina H. -- S.
 Crymodes poli Guen.
 Crym. gelida Guen.
 Crym. borea Guen.
 273. *devastatrix Grote.*
 Phalaena devastator Bracc.
 Agrotis devast. Auct.
 Manestra ordinaria Walk.
 ?*Mam. unicolor* Walk.
 ?*Mam. contenta* Walk.

⁷ This form differs from *trifolii* as described by Speyer Stett. Ent. Zeit., 1875, 137, in the size and shape of the orbicular and tone of the primaries. But I have a N.Y. specimen which is different in these respects and which I take to be the true *trifolii*; this latter is my *chenopodii* B. B. S. N. S., 1, 101. A Californian specimen seems to differ from either.

- | | |
|--------------------------------------|-------------------------------------|
| 274. interna Grote. | 297. stipata Morr. — |
| 275. passer (Guen.). — | 298. leucoseclis (Grote.). — |
| 276. lateritia (Hubn.). | Polia leuc. Grote. |
| var. dubitans Walk. | Dryobota fibulata Morr. |
| 277. sputatrix Grote. | 299. exornata Moeschl. |
| Apamea ? insignata Walk. | 300. finitima Grote. |
| 278. congermana Morr. | Apamea fin. Guen. |
| 279. impulsata Grote. | 301. diversicolor Grote. |
| Mamestra imp. Guen. | Demas div. Morr. |
| 280. castanea Grote. ⁸ | 302. mactata Grote. |
| 280a. albina Grote. | Apamea mact. Guen. |
| 281. apamiformis Grote. | 303. curvata Grote. |
| Xylophasia apam. Guen. | 304. divesta Grote. |
| 282. suffusca Morr. | 305. indirecta Grote. |
| 283. arctica Boisd. | 306. turbulenta Grote. |
| Mamestra amica † Harr. | Phosphila turb. Hubn. |
| Hadena amputatrix Fitch. | 307. marina Grote. |
| 284. Bridghami G. & R. | 308. misclioides Guen. |
| 285. vultuosa Grote. | 309. modica Grote. |
| rurea † Grote. | Apamea mod. Guen. |
| 286. confederata Grote. ⁹ | Cel. subcedens Walk. |
| 287. vulgivaga Morr. — | 310. flava Grote. |
| 288. lignicolor Grote. | 311. fractilinea Grote. |
| Xylophasia lign. Guen. | § Oligia Hubn. |
| 289. genialis Grote. | 312. arna Grote. |
| 290. auranticolor Grote. | Celaena arna Guen. |
| 291. cuculliformis Grote. | 313. chalcedonia (Hubn.). |
| 292. vulgaris Grote. | Hadena fracta Grote. |
| Xylophasia vulg. G. & R. | 314. versicolor Grote. |
| 293. verbascoides Grote. | 315. festivoides (Guen.). — |
| Xylophasia verb. Guen. | 316. exesa (Guen.). — |
| 294. sectilis Grote. | 317. paginata Morr. — ¹⁰ |
| Xylophasia sect. Guen. | PERIGEA Guen. |
| 295. cariosa (Guen.). | 318. xanthioides. Guen. |
| 296. inordinata Morr. | 319. infelix Guen. — |

⁸ Allied to *rubrivena*; perhaps *albina* is a variety corresponding to the var. *Hercyniae* of *rubrivena*.

⁹ Also from Jamaica, W. I. (Thaxter).

¹⁰ The following names cannot be identified from published data concerning them: *Xylophasia* indocilis, libera, arcuata, infixa, *Hadena* intracta, claudens, contenta, Miana vincta, *Celaena* punctifera, infecta, egens, erecta, irresoluta, of the British Museum Lists; also *Apamea* remissa Walk.

320. *enixa Grote.*
 321. *luxa Grote.*
 322. *fabrefacta Harvey.*
 Segetia fabr. Morr.
 323. *orbiea (Morr.).—*
 324. *mersa (Morr.).—*
- DIPTERYGIA *Steph.*
 325. *seabriuscula (Linn.).*
 Noctua pinastri L.
 N. dipterygia Hufn.
 N. tripterygia Esp.
- VALERIA *Germ.*
 326. *Grotei Morr.*
- ARTHROCHLORA *Grote.*
 327. *februalis Grote.*
- CHYTONIX *Grote.*
 328. *iaspis Grote.*
 Apamea iasp. Guen.
- COPIHADENA *Morr.*
 329. *atrieollaris Morr.*
 Homohadena atric. Harv.
- HOMOHADENA *Grote.*
 330. *badistriga Grote.*
 331. *Kappa Grote.*
 332. *figurata Harvey.*
 333. *induta Harvey.*
 334. *incomitata Harvey.¹¹*
- ONCOCNEMIS *Led.*
 335. *Behrensi Grote.*
 336. *Glennyi Grote.*
 337. *Madiana Morr.—*
 338. *Chandleri Grote.*
 339. *Hayesi Grote.*
 340. *Dayi Grote.*
- EUCOPTOCNEMIS *Grote.*
 341. *fimbriaris Grote.*
 Heliophobus fimbr. Grote.
- COPIPANOLIS *Grote.*
 342. *eubilis Grote.*
- APOROPHYLA *Guen.*
 343. *Yosemitae Grote.*
- PACHYPOLIA *Grote.*
 344. *atrieornis Grote.*
 345. *aeutissima Grote.*
- POLIA *Tr.*
 346. *perquiritata Morr.*
 347. *speciosa Morr.—*
 348. *eonfragosa Morr.—*
- DRYOBOTA *Led.*
 349. *stigmata Grote.*
- ACTINOTIA *Hubn.*
 350. *ramosula Grote.*
 Cloantha ram. Guen.
 351. *Stewarti Grote.*
 352. *derupta Morr.—*
- CALLOPISTRIA *Hubn.*
 353. *mollissima Walk.*
 Eriopus moll. Guen.
 Erastria rubicundula Walk.
 354. *monetifera Walk.*
 Eriopus mon. Guen.
 355. *granitosa (Guen.).—*
 356. *floridensis (Guen.).—*
 357. *argentilinea Walk.—*
- LAPHYGMA *Guen.*
 358. *frugiperda Guen.*
 Phalaena frug. Abb. & Sm.
 Prodenia autumnalis Riley.
 var. fulvosa Riley.
 var. obscura Riley.
 359. *inflexa Morr.—*

¹¹ According to Dr. Harvey, Mr. Morrison's description of *retroversa* does not at all apply to *induta*, for which its Author states it was intended. The description agrees partly with *Kappa* and partly with *incomitata*; I think the latter species has probably been confounded with *induta* by Mr. Morrison. The name *retroversa* must, under the circumstances, be abandoned.

PRODENIA *Guen.*

360. commelinae *Guen.*
Phal. comm. Abb. & Sm.
 361. signifera *Walk.*—
 362. ornithogalli *Guen.*—
 363. flavimedia *Harvey.*
 364. lineatella *Harvey.*
Prod. commelinae † *Riley.*

365. praefica *Grote.*

EUPSEPHOPAECTES *Grote.*

366. procinctus *Grote.*

CONSERVULA *Grote.*

367. anodonta *Grote.*
Phlogophora an. *Guen.*

TRIGONOPHORA *Hubn.*

368. periculosa *Grote.*
Phlogophora per. *Guen.*
 369. v-brunneum *Grote.*

EUPLEXIA *Steph.*

370. lucipara *Steph.*
Noctua luc. *Linn.*

BROTOLOMIA *Led.*

371. iris *Grote.*
Phlogophora iris *Guen.*

NEPHELODES *Guen.*

372. minians *Guen.*
 373. violans *Guen.*

TRICHOLITA *Grote.*

374. semiaperta *Grote.*
Hydroecia sem. *Morr.*

HELOTROPHA *Led.*

375. reniformis *Grote.*
 376. atra *Grote.*

GORTYNA *Hubn. (non Led.)*

377. purpuripennis *Grote.*
Orthosia baliola *Morr.*

378. sera *Grote.*

Hydroecia sera *G. & R.*

379. nictitans (*Bkh.*).
ab. erythrostigma (*Haw.*).
v. lucens (*Tr.*). (*Calif.*).

380. inquaesita *G. & R.*

381. immanis *Grote.*
Hydroecia imm. *Guen.*

382. stramentosa *Grote.*
Hydroecia strum. *Guen.*

383. cerina *Grote.*

384. cataphracta *Grote.*

385. nitela *Guen.*

386. nebris *Guen.*

387. speciosissima *G. & R.*

388. marginidens *Guen.*—

389. limpida *Guen.*

390. cerussata *Grote.*

391. rutila *Guen.*
Gortyna leucostigma || *Harr.*

392. purpurifascia *G. & R.*

OCHRIA *Hubn.*

393. Sauzalitae *Grote.*
Ochria purpurifascia † *Grote.*

ACHATODES *Guen.*

394. zeae *Grote.*
Gortyna zeae *Harr.*
Ach. sandix *Guen.*

ARZAMA *Walk.*

395. densa *Walk.*
 396. obliquata *G. & R.*
 397. vulnifica *Grote.*

NONAGRIA *Ochs.*

398. fodiens *Guen.*
 399. inquinata *Guen.*—
 400. enervata *Guen.*—
 401. laeta *Morr.*—

MACRONOCTUA *Grote.*

402. onusta *Grote.*

ADMETOVIS Grote.

403. *oxymorus* Grote.

EUTHISANOTIA Hubn.

404. *timais* Hubn.
Phalaena tim. Cram.
Philoehrysa regnatricæ Grote.

CIRRHOPIPHANUS Grote.

405. *triangulifer* Grote.
Chariclea pretiosa Morr.

SCOLEUCOCAMPA Guen.

406. *liburna* Grote.
Clytie lib. Geyer.
Scolec. ligni Guen.

DORYODES Guen.

407. *acutaria* Guen.
Ligia acut. H.-S.
408. *spadaria* Guen.—

AMOLITA Grote.

409. *fessa* Grote.

THAUMATOPSIS Morr.¹²

410. *longipalpus* Morr.—

EUCALYPTERA Morr.

411. *bipuncta* Morr.—

SENTA Steph.

412. *defecta* Grote.

PLATYSENTA Grote.

413. *atriciliata* Grote.

OMMATOSTOLA Grote.

414. *Lintneri* Grote.

ABLEPHARON Grote.

415. *henrici* Grote.
416. *evanidum* Grote.
417. *fumosum* Morr.—
418. *absidum* Harvey.

HELIOPHILA Hubn.

419. *pallens* Hubn.
Noctua pall. Linn.

420. *Harveyi* Grote.
Leuc. albilinea ‡ Guen.

421. *pertracta* Morr.—

422. *rubripennis* Grote.
Leucania rubr. G. & R.

423. *adjuta* Grote.

424. *ligata* Grote.

425. *phragmitidicola* Grote.
Leucania phr. Guen.

426. *lapidaria* Grote.

427. *adonea* Grote.

428. *commoides* Grote.
Leucania comm. Guen.
Leuc. multilinea Walk.

429. *subpunctata* Harvey.

430. *unipuncta* Grote.
Noctua unip. Haworth.
Leuc. extranea Guen.

431. *pseudargyria* Grote.
Leucania pseud. Guen.

432. *scirpicola* (Guen.).—

433. *juncicola* (Boisd.).—

434. *linita* (Guen.).—

435. *insueta* (Guen.).—

436. *extincta* (Guen.).—

437. *videns* (Guen.).—

438. *obusta* (Guen.).—

439. *ebriosa* (Guen.).—

440. *littera* (Guen.).—

441. *diffusa* (Walk.).—

442. *contraria* (Walk.).—

443. *tripars* (Walk.).—

444. *vetusta* (Walk.).—

445. *rufostrigata* (Pack.).—

ZOSTEROPODA Grote.

446. *hirtipes* Grote.

¹² Mr. Morrison's *TORNOS RUBIGINOSUS* is shown to be a Geometrid *without* ocelli, allied to *BOARMIA*.

UFEUS Grote.

447. *satyricus* Grote.
448. *plicatus* Grote.

PTEROSCIA Morr.

449. *atrata* Morr.

MONODES Guen.

450. *nucicolora* Guen.—

CARADRINA Ochs.

451. *tarda* Guen.—
452. *Meskei* Speyer.—
453. *miranda* Grote.
454. *derosa* Morr.—
455. *?grata* (Hubn.).
 Hadena rasilis Morr.
456. *?multifera* Walk.
 Segetia fideiularia Morr.

PYROPHILA Hubn.

457. *pyramidoides* Grote.
 Amphipyra pyr. Guen.
 ab. inornata Grote.
 acc. ab. conspersa Riley.
458. *tragopoginis* (Linn.).
 Agr. repressus Grote
459. *glabella* Morr.—

ORTHODES Guen.

460. *infirmata* Guen.
461. *cynica* Guen.
 ?Orth. nimia Guen.
 ?Orth. candens Guen.

PSEUDORTHODES Morr.

462. *enervis*.
 Orthodes enervis Guen.
 Orthodes vecors Guen.
 ab. griseocincta (Harv.).

HIMELLA Grote.

463. *fidelis* Grote.
464. *furfurata* Grote.

GRAPHIPHORA Hubn.

465. *oviduca* Grote.
 Taeniocampa ov. Guen.
466. *capsella* Grote.
467. *confluens* (Morr.).—
468. *incerta* (Hufn.).
 Orth. instabilis Fitch.
469. *alia* (Guen.).—
470. *pacifica* (Harv.).
471. *earina* (Morr.).—
472. *modifica* (Morr.).—
473. *Behrensiana* Grote.
474. *arthrolita* Harvey.
475. *intractata* (Morr.).—¹³

CROCIGRAPHA Grote.

476. *Normani* Grote.

CERAMICA Guen.

477. *picta* Grote.¹⁴
 Mamestra picta Harv.
 Ceramica exusta Guen.

PARASTICTIS Hubn.

478. *gentilis* (Grote).
479. *perbellis* (Grote).
480. *minuscule* (Morr.).

METALEPSIS Grote.

481. *cornuta* Grote.

PSEUDORTHOSIA Grote.

482. *variabilis* Grote.
483. *pectinata* Grote.

CHOEPHORA G. & R.

484. *fungorum* G. & R.

¹³ *Taeniocampa styracis* and *hibisei* of Guenee, cannot be made out from published data.

¹⁴ My remarks on this species (Bull. B. S. N. S. 2, 122) are misrepresented by Mr. Morrison (Can. Ent., 6, 250.).

MYTHIMNA *Ochs.*

485. *culea* (*Guen.*).—

ZOTHECA *Grote.*

486. *tranquilla* *Grote.*

CALYMNIA *Hubn.*

487. *orina* (*Guen.*).—

IPIMORPHA *Hubn.*

488. *pleonectusa* *Grote.*

489. *intexta* *Harvey.*

CLEOCERIS *Boisd.*

490. *onychina* (*Guen.*).—

ORTHOZIA *Ochs.*

491. *purpurea* *Grote.*

492. *crispa* *Harvey.*

493. *bicolorago* (*Guen.*).—

494. *helva* *Grote.*

495. *ferrugineoides* *Grote.*

Xanthia ferr. *Guen.*

ab. spurcata (*Walk.*).—

496. *ralla* *Grote.*

Xanthia ralla *G. & R.*

497. *euroa* *Grote.*

Xanthia puta || *G. & R.*

Xanthia euroa *G. & R.*

498. *perpura* *Morr.*—

499. *differta* *Morr.*—

500. *disticha* *Grote.*

?*Caradrina dist.* *Morr.*

501. *posticata* *Harvey.*

502. *infumata* *Grote.*

503. *Belangeri* *Morr.*—

504. *insciens* *Walk.*—

505. *chloropha* (*Hubn.*).—

GLAEA *Hubn.*

506. *viatica* *Grote.*

507. *decliva* *Grote.*

508. *inulta* *Grote.*

509. *olivata* *Harvey.*

510. *tremula* *Harvey.*

511. *apiata* *Grote.*

512. *venustula* *Grote.*

513. *sericea* *Morr.*—

514. *pastillicans* *Morr.*—

515. *anchocelioides* (*Guen.*).—¹⁵

JODIA *Hubn.*

516. *rufago* *Hubn.*¹⁶

EUCIRROEDIA *Grote.*

517. *pampina* (*Guen.*).—

XANTHIA *Hubn.*

518. *togata* (*Esp.*).—

Noctua silogo *Hubn.*

519. *aurantiago* *Guen.*—

SCOPELOSOMA *Curt.*

520. *Pettiti* *Grote.*

521. *ceromatica* *Grote.*

522. *Graefiana* *Grote.*

523. *devia* *Grote.*

524. *Morrisoni* *Grote.*

525. *Walkeri* *Grote.*

526. *vinulenta* *Grote.*

?*sidus* *Guen.*

SCOLIOPTERYX *Germ.*

527. *libatrix* *Germ.*

Noctua lib. *Linn.*

LITHOPHANE *Hubn.*

528. *disposita* *Morr.*

529. *petulca* *Grote.*

Xylina petrificata † *Guen.*

530. *ferrealis* *Grote.*

531. *signosa* *Grote.*

Xylina sign. *Walk.*

¹⁵ *Cerastis adulta* *Guen.* cannot be properly identified, being described from an unpublished figure.

¹⁶ *Hopporina hesperidago* *Guen.*, cannot be identified from published data.

532. *oriunda Grote.* *CLEOPHANA Boisd.*
 533. *Bethunei Grote.* 557. *occata Grote.*
Xylina Beth. G. & R.
 534. *semiusta Grote.* *CUCULLIA Schr.*
 535. *fagina Morr.* 558. *convexipennis G. & R.*
 536. *Georgii Grote.* 559. *asteroides Guen.*
 537. *cinerea (Riley).* 560. *postera Guen.*
 538. *laticinerea Grote.* 561. *florea Guen.*
 539. *tepida Grote.* 562. *intermedia Spey.*
 540. *pexata Grote.* *Cuc. umbratica † Guen.*
 541. *querquera Grote.* 563. *Speyeri Lintn.*
 542. *Thaxteri Grote.*¹⁷ 564. *laetifica Lintn.*
 565. *serraticornis Lintn.*
ANYTUS Grote. 566. *luna Morr.—*
 543. *sculptus Grote.* *ADIPSOPHANES Grote.*
 544. *capax (G. & R.).* 567. *miscellus Grote.*
CALOCAMPA Steph.
 545. *nupera Lintn.* *CRAMBODES Guen.*
 546. *cineritia Grote.* 568. *talidiformis Guen.*
 547. *curvimacula Morr.* *NOLAPHANA Grote.*
LITHOMIA Hubn. 569. *Zelleri Grote.*
 548. *germana Grote.* 570. *malana Grote.*
Calocampa germ. Morr. *Brachytaenia mal. Fitch.*
LITHOLOMIA Grote. *ANOMIS Hubn.*¹⁸
 549. *napaea Grote.* 571. *erosa Hubn.*
Scopelosoma nap. Morr. *?fulvula Guen.*
 572. *luridula Guen.—*
XYLOMIGES Guen. *PTERAETHOLIX Grote.*
 550. *curialis Grote.* 573. *bullula Grote.*
 551. *crucialis Harvey.* *ALETIA Hubn.*
 552. *hiemalis Grote.* 574. *argillacea Hubn.*
 553. *patalis Grote.* *Noctua xyliana Say.*
 554. *confusa (Hubn.).* *Anomis bipunctina Guen.*
 555. *mucens (Hubn.).—* *?Anomis grandipuncta Guen.*
 556. *phytolaccae (Abb. & Sm.).—*

¹⁷ The following names are not recognisable from published data: *Xylina multifaria*, *infructuosa*, *patefacta*, *spoliata*, *commoda*, *?claufacta*, of the British Museum Lists.

¹⁸ This genus resembles *Eucirroedia* in the color and cut of the wings. With the two following, to which it is allied in the prominent eyes and palpi and the fusiform, pyralidiform body, it appears to interrupt the continuity of the genera and its present position is provisional.

LITOPROSOPUS Grote.

575. *futilis* Grote.
Dyops fid. G. & R.

EUTELIA Hubn.

576. *pulcherrima* Grote.

MARASMALUS Grote.

577. *ventilator* Grote.
578. *histrio* Grote.

INGURA Guen.

579. *abrostoloides* Guen.
?Edema producta Walk.
580. *delineata* Guen.—
581. *praepilata* Grote.
582. *occulatrix* Guen.

CALPE Tr.

583. *canadensis* Beth.
Plusiodonta ? purpurascens Walk
Oraesia sobria Walk.

PLUSIODONTA Guen.

584. *compressipalpis* Guen.

BASILODES Guen.

585. *pepita* Guen.

HEMICERAS Guen.

586. *cadmia* Guen.—

HYPBOROPHA Hubn.

587. *hormos* Hubn.
588. *monilis* (Fabr.).

PHYPROSOPUS Grote.

589. *callitrichoides* Grote.
Sudariophora ¹⁹ *nasutaria* Zell.
Doryodes acutalis ‡ Walk.

TELESILLA H.-S.

590. *navia* Harvey.
591. *cinereola* Grote.
Placodes cin. Guen.

592. *vesca* Morr.—

BEHRENSIA Grote.

593. *conchiformis* Grote.

ABROSTOLA Ochs.

594. *ovalis* Guen.
595. *urentis* Guen.—

PLUSIA Hubn.

596. *purpurigera* Grote.
Deva purp. Walk.
597. *aereoides* Grote.
598. *aerea* Guen.
Agrapha aerea Hubn.
599. *balluca* Guen.
Dyachrisia ball. Gey.
600. *metallica* Grote.
Pl. bractea ‡ Grote.
601. *contexta* Grote.
602. *Putnami* Grote.
603. *striatella* Grote.
604. *thyatiroides* Guen.
605. *formosa* Morr.²⁰
Leptina form. Grote.
606. *mappa* G. & R.
607. *bimaculata* Steph.
Pl. u-brevis Guen.
608. *biloba* Steph.
609. *verruca* (Fabr.).
610. *Dyaus* Grote.
611. *precatationis* Guen.

¹⁹ This name is now shown by Prof. Zeller, to be derived from a character which is erroneously attributed to the species.

²⁰ Unknown to me since I described the species in 1866, when I indicated the difference in the length of the palpi; both this species and *thyatiroides* are apparently mimetic of the Bombyciae.

612. *latioclavia* Morr.—
 613. *labrosa* Grote.
 614. *monodon* Grote.
 615. *gamma* (Linn.).
 616. *pseudogamma* Grote.
 617. *ou* Guen.
 618. *fratella* Grote.
 619. *u-aureum* Boisd.
 620. *8-scripta* Sanb.
 621. *viridisignata* Grote.
 622. *brassicæ* Riley.
Pl. ni † Grote.
 623. *oxygramma* Guen.
Autographa ox. Geyer.

624. *mortuorum* Guen.
 625. *epigaea* Grote.
 626. *ampla* Walk.
 627. *diasema* Dalm.—
 628. *pa-iphæia* Grote.
 629. *parilis* (Hubn.).
 630. *simplex* Guen.
 631. *alticola* Walk.
Pl. ignea Grote.
 632. *Hochenwarthi* (Hock.).
N. divergens Fabr.
 633. *devergens* (Hubn.).—²¹

ANARTA Ochs.

634. *crocea* Hy. Edw.—
 635. *myrtilli* (Linn.).—
An. acadiensis Beth.
 636. *cordigera* (Thunb.).
An. luteola G. & R.
 637. *melaleuca* (Thunb.).—
An. bicycla Pack.
 638. *Kelloggii* Hy. Edw.—
 639. *melanopa* (Thunb.).
An. nigrolunata Pack.

640. *4-lunata* Grote.
 641. *subfuscata* Grote.
 642. *Schoenherri* Zett
An. leucocycla Staud.
 643. *Richardsoni* (Curt.).
An. algida Lef.
 644. *promulsa* Grote.
Mamestra prom. Morr.
 645. *nivaria* Grote.
 646. *membranacea* Morr —
 647. *lapponica* (Thunb.).—
An. amissa Lef.
 648. *Zetterstedtii* Staud.²²

AGROTIPHILA Grote.

649. *montana* Grote.
Agrotis mont. Morr.

LEPIPOLYS Guen.

650. *perscripta* Guen.

ACOPA Harvey.

651. *carina* Harv.

ACERRA Grote.

652. *normalis* Grote.

PLAGIOMIMICTS Grote.

653. *pityochromus* Grote.

STIBADIUM Grote.

654. *spumosum* Grote.

FALA Grote.

655. *ptycophora* Grote.

SCHINIA Hubn.

656. *trifascia* Hubn.
 657. *rectifascia* Grote.
 658. *gracilentia* Hubn.
?Sch. oleagina Morr.
 659. *media* Morr.—
 660. *bifascia* Hubn.—

²¹ The following species cannot be identified from published data: *Plusia flagellum*, *indigna*, *selecta*, *secedens*, of the British Museum Lists; *Plusia falcigera* and *rectangularis* of Kirby; *Noctua omicron* of Linn.

²² The following species cannot be identified from published data: *Anarta impingens*, *constricta*, *septentrionis*, *rigida*, of the British Museum Lists.

POLENTA *Morr.*

661. *Tepperi Morr.*—

CHLORIDEA *Westw.*

662. *rhexiae Westw.*
Phalaena rhex. Abb. & Sm.

663. *subflexa (Guen.)*.—

PORRIMA *Grote.*²³

664. *sanguinea.*
Oria sang. Geyer.
?Alaria volupia Fitch.

ALARIA *Westw.*

665. *gaurae Westw.*
Phalaena gaur. Abb. & Sm.

RHODOPHORA *Guen.*

666. *florida Guen*

DERRIMA *Walk.*

667. *stellata Walk.*
668. *Henrietta Grote.*

PIPPONA *Harv.*

669. *bimatrix Harv.*

TRICOPIS *Grote.*

670. *aleucis Harv.*
671. *chrysellus Grote.*

EULEUCYPTERA *Grote.*

672. *cumatilis Grote.*

TAMILA *Guen.*

673. *Meadii Grote.*
674. *nundina Guen.*
Noct. nundina Drury.
675. *tertia Grote.*

HELIOLONCHE *Grote.*

676. *modicella Grote.*

HELICPHANA *Grote.*

677. *mitis Grote.*

HELIOSEA *Grote.*

678. *pictipennis Grote.*

ADONISEA *Grote*

679. *pulchripennis Grote.*

LYGRANTHOECIA *G. & R.*

680. *lynx Grote.*
Anthoecia lynx Guen.

681. *bina (Guen.)*.—

682. *brevis Grote.*

- 682a. *atrites Grote.*

683. *limbalis Grote.*

684. *arcifera Grote*
Anthoecia are. Guen.

685. *Spraguei Grote.*

686. *Packardi Grote.*

- 686a. *nobilis Grote.*

- 686b. *mortua Grote*

687. *jaguarina Grote.*
Anthoecia jag. Guen.

688. *Meskeana Grote.*

689. *tuberculum (Hubn.)*.—

690. *roseitincta Harvey.*

691. *celeris (Grote).*

692. *saturata Grote.*

693. *Thoreaui G. & R.*

694. *marginata G & R.*
Pyrallis marg. Haw.
Anth. rivulosa Guen.
Anthophila divergens Walk.
Euclidia designata Walk.
Microphysa contracta Walk.

EUTRICOPIS *Morr*

695. *nexilis Morr.*—

MELAPORPHYRIA *Grote.*

696. *immortua Grote.*

MELICLEPTRIA *Hubn.*

697. *villosa Grote.*
M. paucilla Grote.

698. *diminutiva Grote.*

699. *persimilis Grote.*

700. *sueta Grote.*

²³ *Oria Hubner.* is used only for *musculosa*, originally, in the Verzeichniss. Geyer could not then use it for a species structurally distinct, nor Guenee restrict it to Geyer's species.

701. *californiensis Grote.*
 702. *prorupta Grote.*
 703. *venusta Hy. Edw. —*
 704. *oregonica Hy. Edw. —*
 705. *vacciniæ Hy. Edw. —*
 706. *fasciata Hy. Edw. —*
HELIOTHIS Hubn.
 707. *lucens Morr.*
 708. *spinosæ Guen.*
 Anth. hirtella G. & R.
 709. *Crotchii Hy. Edw. —*
 710. *phlogophagus G. & R.*
 711. *luteitinctus Grote.*²⁴
 712. *armiger Hubn.*
 Hel. umbrosus Grote.
 713. *lupatus Grote.*
 714. *cupes Grote.*
HELIOCHILUS Grote.
 715. *paradoxus Grote.*
OXYLOS Grote.²⁵
 716. *citrinellus (G. & R.).*
AEDOPHRON Led.
 717. *Snowi Grote.*
PYRRHIA Hubn.
 718. *exprimens Grote.*
 Heliothis expr. Walk.
 719. *angulata Grote.*
 720. *illiterata Grote.*
AXENUS Grote.
 721. *arvalis Grote.*
 722. *ochraceus Hy. Edw. —*
 723. *amplus Hy. Edw. —*
ANNAPHILA Grote.
 724. *diva Grote.*
 725. *depicta Grote.*
 726. *decia Grote.*
 amicula Hy. Edw.
 727. *arvalis Hy. Edw. —*
 728. *lithosina Hy. Edw. —*
 729. *germana Hy. Edw. —*
 730. *mera Harvey.*
 731. *danistica Grote.*
 732. *immerens Harvey.*
 733. *domina Hy. Edw. —*
 734. *superba Hy. Edw. —*
TRICHOTARACHE Grote.
 735. *assimilis Grote*
TARACHE Hubn.
 736. *flavipennis Grote.*
 737. *aprica Hubn.*
 ab. biplaga Guen.
 738. *obatra Morr. —*
 739. *terminimaculata Grote.*
 740. *delecta G. & R.*
 Acontia d l. Walk.
 Acon. metallica Grote.
 741. *lactipennis Harvey.*
 742. *cretata G. & R.*
 743. *patruelis Grote.*
 744. *candefacta Hubn.*
 745. *tenuicula Morr.*
 746. *erastrioides G. & R.*
 Acontia er. Guen.
 747. *angustipennis Grote.*
 748. *crustaria Morr. —*
 749. *(?) patula Morr. —*

²⁴ Size of *phlogophagus* and with the same ornamentation. It differs by the hind wings being clear yellow and having a very coarse discal lunule; the terminal band is black, interrupted as usual by the yellow ground color. Beneath yellow with the markings black and prominent, and with the terminal band on secondaries narrower than usual and faintly marked, being black only in a blotch above vein 1. Kansas, Prof. Snow, No. 51.

²⁵ This form differs by the fore tibiae being provided with two stout terminal inner spines succeeded by three spinules; and four shorter outer spines. The term "claw" has been heretofore apparently incorrectly used by me in this group. To distinguish the chelate appendages the term "claw" should be confined to those broad at the base, stout and curved, the stouter simple processes may be termed "spines", the finer ones "spinules".

GROTELLA *Harvey.*

750. septempunctata *Harv.*

CHAMYRIS *Guen.*

751. cerintha (*Treits.*).

EUSTROTIA *Hubn.*

752. olivula (*Guen.*).—

753. obaurata *Morr.*

754. synochitis (*G. & R.*).

755. carncola *Grote.*

Erastria carn. *Guen.*

756. apicosa *Grote.*

Phytometra ap. *Haw.*

Erastria nigrifula *Guen.*

Miana undulifera *Walk.*

757. albidula *Grote.*

Erastria alb. *Guen.*

758. muscosula *Grote.*

Erastria muse. *Guen.*

759. musta *Grote.*

Erastria musta *G & R.*

760. mitographa *Grote.*

761. malaca *Grote.*

THALPOCHARES *Led.*

762. concinnimacula *Grote.*

Leptosia conc. *Guen.*

763. mundula *Zeller.*

LITHACODIA *Hubn.*

764. bellicula *Hubn.*

765. penita *Morr.*—

SPRAGUEIA *Grote.*

766. guttata *Grote.*

767. leo *Grote.*

Agrophila leo *Guen.*

768. onagrus (*Guen.*).—

(var. *prae* ?)

769. dama *Grote.*

Agrophila dama *Guen.*

770. apicella *Grote.*

Agrophila truncatula *Zell.*

771. tortricina (*Zell.*).

772. fasciatella *Grote.*

XANTHOPTERA *Guen.*²⁶

773. nigrofimbria *Guen.*

EXYRA *Grote.*

774. semicrocea *Grote.*

Xanthop. semic. *Guen.*

775. semiflava (*Guen.*).

776. Ridingsii (*Kiley.*).

Xanthop. nigrocaput *Morr.*

777. fax *Grote.*

PROTHYMIA *Hubn.*

778. coccineifascia *Morr.*

Xanthoptera cocc. *Grote.*

779. rosalba (*Grote.*).

Pr. rosaba *Morr.*

780. subolivacea *Harvey.*

781. orgiae *Grote*

GALGULA *Guen.*

782. hepara *Guen.*

783. subpartita *Guen.*

Galg. partita *Guen.*

LEPIDOMYS *Guen.*


784. irrenosa *Guen* —

METOPONIA *Dup.*

785. obtusa *H.-S.*

Mct. obtusula *Zell.*

786. perflava *Harvey.*

 The following genera have been omitted on Page 10:

HYPPA *Dup.*

325½. xylinoides *Guen.*

Xylina contraria *Walk.*

Hadena anciscoconensis *Morr.*

MORRISONIA *Grote.*

352¼. evicta *Grote.*

352½. vomerina *Grote.*

352¾. peracuta *Morr.*

²⁶ This genus is indicated by myself in January, 1873, when describing certain species now referred to *Prothymia*. At that time I restricted *Xanthoptera* to *nigrofimbria*, as the type, thus excluding the species now referred to *Exyra*.

I.

On the Structural Characters of the Noctuae.

Recent studies on the Noctuae have shown that a number of structural characters exist, which may be used to divide the species into genera. Some of these characters are noticed by Stephens in 1829; but we owe to Julius Lederer, in 1857, the more complete classification of the Family, and one which has become the basis of our knowledge on this subject. In May, 1874, I published a list of the North American species, classifying them as nearly as I could according to Lederer's method, which I had applied to many of the species in a number of papers previously published in various scientific journals.

The compound eyes are either naked (*Agrotis*, *Hadena* etc.) or their surface is studded with hair (*Mamestra*, *Anarta*, *Heliophila* etc.). They are sometimes provided on the upper margin with long hairs (Wimpern); I have expressed this character by the translation "lashes". These lashes are easily confounded with the usually discolorous scales lying back of the compound eye, and, on occasion, I have made the mistake myself. The ocelli, or simple eyes, are present with but one exception in the North American *Noctuelitae* e. g., *Feralia jocosa*, but as they are absent in two or three European genera, according to Authors, they are not an inviolable character of the group; they are wanting in the small group *Noctuo-Phalaenidi*. The tibiae or shanks are either without spines over the joint, or they are provided with them; sometimes (*Adita*, *Oncocnemis*, *Dieopis* etc.) there is a terminal long claw at the end of the front tibiae; again there is a succession of spines ending in a claw, as in the genera allied to *Heliothis*. The vestiture of the thorax is sometimes massed in tufts in front and behind (*Mamestra*), sometimes plain (*Graphiphora* etc.), sometimes there is a small tuft behind the collar (*Crciographa*, *Xanthia* etc.); there is also a ridge of scales in some species now classed under *Agrotis*. The dorsum of the abdomen is often bare of tufts (*Agrotis*), or has merely a basal tuft, and again a succession of tufts (*Mamestra* etc.). The collar in front of the thorax is occasionally puffed up medially (*Cucullia*), but usually only feebly projected. The tuftings take on different shapes; *Plusia* has a spreading thoracic tuft, *Behrensia* a fan-shaped one on the abdomen centrally. Perfect specimens are needed to observe these characters and their full value is perhaps not yet established. The wings have the outer margin sometimes even (e. g. *Plusia*) sometimes uneven (*Scopelosoma*), rarely angulated (*Scoliopteryx*). The neuration is subject to feeble modifications. The primary cell is undivided, vein 5 usually nearer 4 than 6; there is almost always a small accessory cell, and there is a certain amount of variation in the position of veins 7 and 8. In the males of *Heliochilus* and *Pteraeothix* the neuration is aberrant. On the hind wings vein 1 has a peculiar position in the *Bombyciae*. In the male the secondaries are provided with a simple bristle, which in the opposite sex is compound; I have suggested that this bristle is a specialized vein. The clypeus or front of the head is usually smooth, sometimes with a projection (*Ochria*, *Arzama*), again with a cup- or heart-shaped depression (*Stibadium*, *Plagiomimicus*), in the genus *Fala*, these characters are apparently united; again the surface is roughened or tuberculate. The vestiture of the thorax is either scaly (*Jaspidea*, *Tarache*), or hairy (*Anarta*, etc.), or again consists of scales and hair; I have used this character to distinguish otherwise related genera as *Tamila* and *Heliothis*. As a rule the clothing of the body is more appressed and thinner in the Southern forms, more shaggy in the Northern. The three-jointed labial palpi show a slight variation in position, sufficient to give at times a generic character; in the sub-group *Fasciatae* the third joint is usually elongated; in the sub-group *Deltoides* the palpi are occasionally thrown backward over the thorax and disproportionately long. The antennae are setose or brush-like, simple, subpectinate or feathered, especially in the males;

in a few genera (*Renia* etc.) they possess a single tuft or coil of hair; in *Sylectra* they have a peculiar structure. The spiral tongue varies in relative length and stoutness. The ovipositor is sometimes extended (*Dianthoccia*, *Parastichtis*, *Graphiphora*), usually concealed.

II.

On the Geographical Distribution of the Noctuae.

Out of about twelve hundred North American species of Noctuae, less than thirty (if we except a few Arctic species) are considered identical with European forms. The degree of relationship is variously expressed. Some species are very nearly alike, so that a practiced eye is needed to distinguish the forms from the remote localities. Again the differences are more or less evident, while the great mass of the species admit of no very near comparison. These facts seem to point to a nearer common origin for certain American and European Noctuae, and it has even been suggested that the faunae have become separated by the submergence of an Atlantis. I think that the European and North American Noctuae are in part descended from species living over a common territory and that the Glacial Epoch has separated the stocks and, perhaps, induced local modification on either side of the Atlantic. The climate of the northern portions of the two continents is shown to have been much hotter during the Tertiary than it is at present. The species, not introduced by commerce, which are shown to be the same on both sides of the Atlantic, are, then, the unmodified descendants of pre-glacial species; just as I have suggested that the Alpine faunae of the White and Rocky Mountains are the relics of a fauna which followed the ice-wave back to the North during the opening of the Quaternary. The time may come when a phyllogenetic sketch of the species will be a possibility; at present we are only commencing to entertain the idea that species are phenomena of succession.

On the whole the species East of the Rocky Mountains and as far as Texas, have a common facies, nevertheless there is a gradual replacement as we go southward where the sub-groups *Fasciatae* and *Deltoidea* become more prevalent. In the different genera there is room for interesting remarks already on the subject of their distribution; but the data are everywhere imperfect, the authority frequently doubtful, so that an exposition of the facts recorded as yet does not seem to offer probable conclusions. One interesting fact is here restated. All our Eastern species referred in this List, I believe correctly, to *Gortyna* Hubn. (non Led.), have a smooth front and are therefore not congeneric with the European *Ochria flavago* Hubn. which has a clypeal protuberance, and is the sole European species of its genus. But in California there is a second kind of *Ochria*, with a horned clypeus, named by me *Ochria Sauzalitae*, and discovered by my friend Mr. JAMES BEHRENS. This Californian species resembles in ornamentation the Eastern species of *Gortyna* with smooth fronts, and does not resemble in this respect its European congener. And there is a single North American *Gortyna* from the East, with a smooth front, *Gortyna cataphracta*, which resembles in ornamentation the European *Ochria flavago* which has a horned clypeus. This opens up the questions of the value of structural characters, and the relation of structure to habit; for the horned clypeus doubtless is correlated with the habits of the moth. Is it possible that the hornless *Gortyna cataphracta* is genetically more immediately connected with the horned *Ochria flavago*, than is the horned Californian species which we now more intimately associate with the European form?

Such inquiries are beyond the limits of my present space, nor can I suggest as yet but few of them. But I am glad to show there are questions of general import suggested by these smaller animals, and that the study of Entomology is wider than the mere whims of collectors of insects.

III.

Notes and Descriptions.

Trigonophora V-brunneum n. s.

This is Guenee's var. A of *periculosa*. It differs by the median v-shaped space being of an intense, contrasting, velvety brown and also somewhat broader in figure. The transverse posterior line is denticulate on vein 2, and submedian fold, where it is straighter in *periculosa*. Beneath the line on hind wings is more uneven. Else very similar, while darker than its ally; the subterminal line more even, with a darker preceding shade about vein 7. Hab. Canada, Mr. Norman, Mr. Kuetzing; New York.

Pachypolia acutissima n. s.

♂. Antennae shortly pectinate; eyes naked, tibia unarmed; dorsum of the abdomen feebly tufted at base. Resembles in appearance *Mamestra imbrifera* Grote, or rather *Pachypolia atricornis* Grote, but differs from all the large black and white Noctuidae known to me as well as from two of Mr. Morrison's descriptions under *Polia*, by the medially finely, acutely and deeply dentate transverse posterior line. Black and white. Lines black edged with pure white; ground of the wing blackish; no other shades. A fine basal black dash and one below it. T. a. line with the terminal inflection acutely prolonged. Claviform a broad space surrounded by a fine, somewhat rounded black line. Orbicular oblique, large, white with dark centre, projected inferiorly towards the reniform; the latter upright, of the usual shape, like the orbicular in color. T. a. line perpendicular, geminate, narrow superiorly, black with white center, acutely and deeply dentate opposite the cell, with a marked projection inwardly on submedian fold. Subterminal line white, its inward dentations preceded by black marks. Subterminal space and terminal space before the margin shaded with whitish, gray in appearance. Fringe fuscous, dotted with white at the tips of the veins. Hind wings and abdomen dark fuscous; beneath pale, somewhat ochery; on hind wings an irregular dentate line and an outer even shade line; discal spots lunate, black; fore wings mostly fuscous with a reflection of the dentate t. p. line. Collar and front with a black line; tegulae obsoletely black lined; legs dotted. Wider winged than *P. atricornis* Grote. *Expanse* 44 m. m., Mr. Kuetzing, Montreal, from whence also I have *Agrotis pressa* Grote (*Eurois pressus*).

Dryobola stigmata n. s.

♂. Color of *subjuncta*, and with a resemblance to *thalassina* and *didyma* of Europe. Eyes naked and distinctly lashed. Head and thorax blackish brown with a black line on the front and collar; tufts and thorax touched with a red brown. A black basal line and a faint line on submedian fold across the median space. T. a. line even, with a tooth on submedian vein. Claviform small; orbicular angulate, concolorous, a black line above it to collar. Reniform contrasting, greenish white, vague, with an inner dark annulus; t. p. line dentate opposite the cell, curved inwardly below vein 3; s. t. line faint, pale, without W-mark, terminal space blackish. Median space shaded with red brown. Hind wings dark fuscous; be-

neath paler with faint double lines and on primaries an annulus in place of the usual solid spot; on hind wings the spot is small and solid. *Expanse* 36 m. m. Montreal. Mr. C. W. Pearsons.

I have examined the unset specimen sent me as the type of *Dryobota fibulata* by Mr. Morrison. The eyes are unlashd and I would refer the species to *Hadena*; however I could find no essential differences between it and my *leucoscelis*, which I have originally, very probably incorrectly, referred to *Polia*.

Hadena interna n. s.

♂. Closely allied to *devastatrix*, and resembling some of the darker suffused specimens of that species, but smaller, and distinct by the coarse of the pale, yellowish subterminal line which runs strongly obliquely inwardly above internal angle, forming a well marked suins. Blackish, all the markings obscured. The pale s. t. line preceded by a black interrupted linear shade; terminal black dots large inferiorly. Hind wings very dark, blackish, paler at base with indistinct lunule and median shade; the pale interruption at anal angle *unusually* prominent. Beneath with a *broad* black discal mark and double exterior shades on hind wings; the color is blackish with internal region of primaries and disc of hind wings paler. Thorax and head and appendages blackish; abdomen fuscous above, blackish beneath. *Expanse* 35 m. m. Chicago, Prof. Westcott, No. 434.

Hadena cuculliiformis n. s.

♂. Allied to *vertascoides*, and especially like *Cucullia* in the black tuftings of the center of the thorax descending over the dorsum of abdomen, and in the shape of the wings which are narrower than in any of the allied species. Pale brown with obliterate markings and the interspaceal deeper brown shadings paler than usual. The t. p. line is visible above internal margin as a white, sinuate (not inwardly arcuate as in *verbascoides*) streak, followed with a dark shade. No traces of subterminal line. Hind wings and under surface paler than its ally. *Patagia* deep brown with shaded margins; head and collar paler, latter with a dark line. The moth expands 42 m. m. and has been sent to me by my kind friend Mr. James Behrens, as taken at Sauzalito, Cal., May 11th, (No. 1016).

Hadena ancocisconensis Morrison.

The unset ♀ type of this species, described as from "Glen Valley, Mt. Washington, N. H", has been sent to me by Mr. Morrison for examination. It is the common *Hyppa xylinoides* of Guenee, already redescribed by Walker as *Xylina contraria*. The extraordinary specific name, taken from Harris' *Cicindela anc.*, is irrelevant. In different papers, regarding the White Mountain faunae, I have taken the ground that it was "unsafe" for Mr. Morrison, with his knowledge of the subject, to describe new species from that region. I instanced *Agr. islandica*, redescribed by him as *opipara* Morr. The present instance additionally viudicates my expression and justifies my criticism.

Cucullia laetifica Lintner (n. s.).

Closely allied to *C. Speyeri*. The anterior wings are narrower and less curved anteapically than in that species; they are of a paler gray shade. The subobsolete reniform and orbicular spots are marked with ochraceous-yellow dashes; a streak of

the same color resting on the subcostal nervure at its base and another within the inferior teeth of the anterior transverse line. This line is more acutely toothed than in *Speyeri*. The oblique black streak on cell 1 b, is faintly bordered above with ochraceous-yellow; the two small teeth of the posterior transverse band, which are divided by the median fold, are of nearly equal length, while in *Speyeri* the one below the fold is much the longer; between these teeth and the opposed tooth of the anterior transverse line is a white spot, resting on the fold and reaching nearly half-way to the nervure on each side. Terminal margin, lined distinctly with black, interrupted by the nervures.

Posterior wings hyaline, with a very narrow lustrous brown border, and nervures covered with brown scales, cilia white.

Expanse of wings 1.90 m. Length of body exclusive of anal tuft .80 m.

Described from a ♂ received from Bastrop, Texas, and in the collection of Mr. Otto Meske of Albany.—*J. A. Lintner*.

Agrotis fenisecca Harvey (n. s.).

♂. Three male specimens from California, received by the Buffalo Society of Natural Sciences from Mr. James Behrens, belong to a new species allied to *fuscigera*. The color and markings of the fore wings of the species are closely similar, but the hind wings are pure white in *fenisecca*, reflecting the discal spot from beneath, and with white fringes and a broken black terminal line. The antennae are more lengthily ciliate, brushlike, sub-pectinate. From *Rileyana*, the new species differs by the concolorous stigmata.—*L. F. Harvey*.

Agrotis carissima Harvey (n. s.).

♂. Allied to *formalis*. Head, thorax, fore wings and body beneath stained of a reddish purple over fuscous. Veins marked with blackish. Lines obsolete, geminate, marked by included paler tint. Stigmata obsolete. Collar with a jet black contrasting band. Beneath the wings are blackish, irrorate; hind wings paler with line and small discal mark. California. Expanse 34 m. m.—*L. F. Harvey*.

Charadra decora Morr.

I learn from the Author that this species is incorrectly described as Californian; it is therefore excluded from this List.

Metalepsis n. g.

This genus is equivalent to *Pachnobia* of v. Heineman but not of Guenee, whose type, as I have elsewhere shown, is *carnea*. Eyes naked, *with lashes*. Fore tibiae unarmed, middle and hind tibiae spinose. Habitus of *Orthosia*. The European *rubricosa* belongs to this genus and the type is the Californian *Pachnobia cornuta* Grote.

Spragueia n. g.

In the European *Erotyla sulphuralis* veins 7 and 8 of the fore wings are fused at base, 8 out of 7 well beyond the closure of the accessory cell. Our species hitherto referred to *Erotyla* differ in the their narrower primaries, the costal and internal

margins nearly parallel. In the type of the new genus, *leo*, veins 7 and 8 spring independently from the extremity of the cell. I have examined the neuration of *fasciatella* and it agrees; I do not see then any ground for separating the two species *tortricina* and *fasciatella* from the spotted species *dama* and *onagrus*. Named for my friend Henry S. Sprague of Buffalo.

Exyra Grote.

In this genus the cell is closed; the accessory cell elongate, 7 and 8 on a very short stalk from the extremity of the cell. The wings are broad, the body hairy and the thorax moderately rough. The type is *semicrocea*, the larva of which feeds on *Sarracenia* and has been ably studied by Professor C. V. Riley.



Explanation of Plate.



Figure 1, *Apatela funeralis*.

“ 2, *Apatela lithospila*.

“ 3, *Lithophane Thaxteri*.

“ 4, *Acerra normalis*.

“ 5, *Homohadena badistriga*.

Figure 6, *Behrensia conchiformis*.

“ 7, *Agrotis pressa*.

“ 8, *Pachypolia atricornis*.

“ 9, *Pachypolia acutissima*.

“ 10, *Cucullia serraticornis*.

GENERIC INDEX.

	Page.		Page.
Ablepharon.....	12	Crocigrapha.....	13
Abrostola.....	16	Cucullia.....	15, 24
Acerra.....	17	Derrima.....	18
Achatodes.....	11	Dianthoeecia.....	8
Acopa.....	17	Dicopis.....	3
Actinotia.....	10	Diphthera.....	4
Adipsophanes.....	15	Dipterygia.....	10
Adita.....	7	Doryodes.....	12
Admetovis.....	12	Dryobota.....	10, 23
Adonisea.....	18	Eucalyptera.....	12
Aedophron.....	19	Encirroedia.....	14
Agrotiphila.....	17	Eucoptocnemis.....	10
Agrotis.....	5	<i>Eulonche</i>	5
Alaria.....	18	Euleucyptera.....	18
Aletia.....	15	Euplexia.....	11
Amolita.....	12	Eupsephopaectes.....	11
Anarta.....	17	<i>Eurois</i>	7
<i>Anicla</i>	7	Eustrotia.....	20
Anomis.....	15	Eutelia.....	16
Annaphila.....	19	Eutbisanotia.....	12
Anytus.....	15	Eutolype.....	3
Apatela.....	4	Eutricopis.....	18
Aporophyla.....	10	Exyra.....	20
Arthrochlora.....	10	Fala.....	17
Arzama.....	11	Feralia.....	4
Axenus.....	19	Galgula.....	20
Basilodes.....	16	Glaca.....	14
Behrensia.....	16	Gortyna.....	11, 22
Brotolomia.....	11	Graphiphora.....	13
Callopietria.....	10	Grotella.....	20
Calocampa.....	15	Habrosyne.....	3
Calpe.....	16	Hadena.....	8, 24
Calymnia.....	14	Harrisimemna.....	4
Caradrina.....	13	Heliochilus.....	19
Ceramica.....	13	Heliolonche.....	18
Cerma.....	5	Heliophana.....	18
Chamyris.....	20	Heliophila.....	12
Charadra.....	3	Heliosea.....	18
Chloridea.....	18	Heliothis.....	19
Choephora.....	13	Helotrophia.....	11
Cirrhophanus.....	12	Hemiceras.....	16
Cleoceris.....	14	Himella.....	13
Cleophana.....	15	Homohadena.....	10
Chytonix.....	10	Hyppa.....	20
Conservula.....	11	Hypsoropha.....	16
Copihadena.....	10	Ingura.....	16
Copipanolis.....	10	Ipimorpha.....	14
Crambodes.....	15		

	Page.		Page.
Jaspidea	5	Platysenta	12
Jodia	14	Plusia	16
Laphygma	10	Plusiodonta	16
Lepidomys	20	Polenta	18
Lepipolys	17	Polia	10
Leptina	3	Polygrammate	5
Lithacodia	20	Polyphaenis	7
Litholomia	15	Porrima	18
Lithomia	15	Prodenia	11
Lithophane	14	Prothymia	20
Litoprosopus	16	Pseudorthodes	13
Lygranthoecia	18	Pseudorthosia	13
Macronoctua	11	Pseudothyatira	3
Mamestra	7	Pteraetholix	15
Marasmalus	16	Pteroscia	13
<i>Matuta</i>	7	Pyrophila	13
Melaporphyria	18	Pyrrhia	19
Melicleptria	18	Raphia	3
Metalepsis	13	Rhodophora	18
Metoponia	20	Senta	12
Microcoelia	5	Schinia	17
Momophana	4	Scoliapteryx	14
Monodes	13	Scopelosoma	14
Morrisonia	20	Scolecocampa	12
Mythimna	14	Spragueia	20
Nephelodes	11	Stibadium	17
Nolaphana	15	Tamila	18
Nonagria	11	Tarache	19
Ochria	11, 22	Telesilla	16
<i>Oligia</i>	9	Thalpochares	20
Ommatostola	12	Thaumatopsis	12
Oncocnemis	10	Thyatira	3
Orthodes	13	Tricholita	11
Orthosia	14	Trichotarache	19
Oxylos	19	Trigonophora	11, 23
<i>Pachnobia</i>	7	Tricopsis	18
Pachypolia	10, 23	Ufeus	13
Parastichtis	13	Valeria	10
Perigea	9	Xanthia	14
Phyprosopus	16	Xanthoptera	20
Pippona	18	Xylomiges	15
Plagiomimicus	17	Zotheca	14
		Zosteropoda	12



Pages 1-4 of this List were printed Nov. 8th; pp. 5-8, Nov. 12th; pp. 9-12, Nov. 16th; pp. 13-16, Nov. 18th; pp. 17-20, Nov. 22d; pp. 21-24, Nov. 25th; pp. 25-28, Nov. 27th, 1875.

REINECKE & ZESCH, Printers,

500 Main Street, BUFFALO, N.Y.

